Impex Aviation GmbH

Impex Aviation GmbH, Airport Karlsruhe / Baden-Baden
Victoria Blvd. A 106, 77836 Rheinmuenster
Germany

www.impexaviation.de

AvMap Avionics Sales Guide 2014

Impex Aviation GmbH

AvMAP SATELLITE NAVIGATION

www.impexaviation.de

AvMap Corporate Profile

Corporate Profile

100% Made in Italy, since 1994

Established in 1994, within the TWS Holding, **AvMap s.r.l.,**
is the Italian manufacturer of satellite navigation solutions sold worldwide.

Corporate Profile

- **AvMap s.r.l.** is specialized in the design and production of customized navigation systems for consumer / B2B / OEM markets.
- The TWS Holding relies on **30 years of Experience** in satellite navigation systems for the terrestrial, aeronautical and marine markets.
- AvMap **produces in Italy and controls the whole production process: both Hardware manufacturing and Software development.**

Our strength

- Proprietary technology
- Made in Italy
- A complete panorama of GPS applications
- 30 years expertise

Corporate Profile

Sectors of activity

- Terrestrial / Automotive
- Avionics
- Marine
- Precision Farming

Avionic Products

AvMap avionic products include portable **GPS, EFIS**, **ADAHRS , glass cockpit system and accessories.**

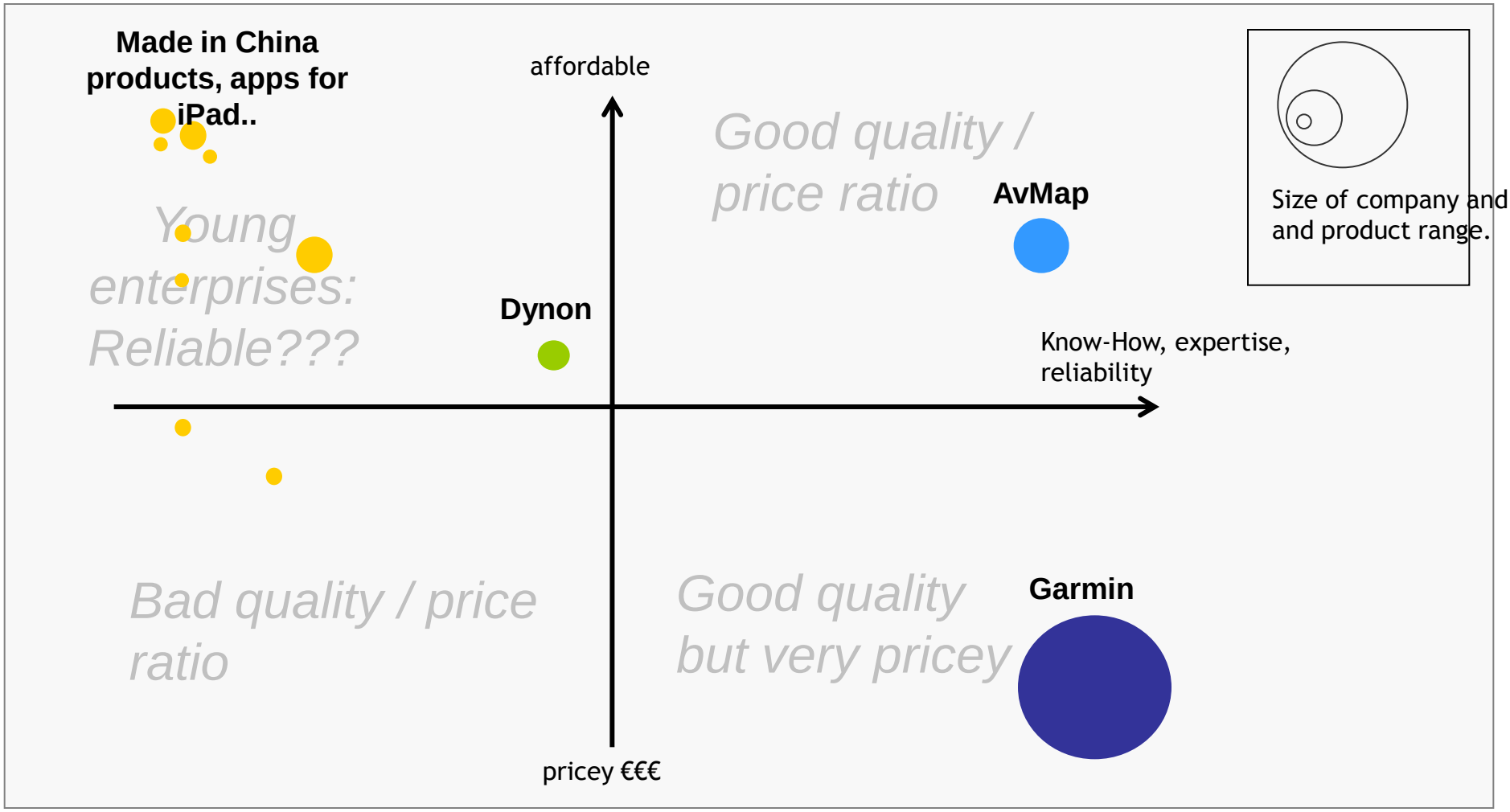
AvMap aeronautical products are used by private pilots as well as by **Armed forces,** Governmental agencies, rescue teams, Civil Defense.

First product launched in 1994.

Avionic Products: continuous evolution

- **1992: Air Master**
- **1994: EKP 100**
- **1995: EKP 200**
- **1997: EKP GPS NT**
- **1999: EKP GPS NT Pro**
- **2000: EKP II**
- **2001: EKP III**
- **2004: EKP IV**
- **2005: EKP IV pro** (integrating terrestrial maps)
- **2006: GeoPilot** (aeronautical + terrestrial GPS)
- **2007: GeoPilot II**
- **2009: Geopilot II Plus**
- **2010: EKP MIL**
- **2011: EKP V**
- **2012: EKP V Glass cockpit system**
- **2013: A2 ADAHRS, Ultra EFIS**

Positioning



Avionic Products

Categories

Portable GPS

Instruments

Glass Cockpit system

AvMap Glass Cockpit System

Autopilot

Air data and attitude

CAS

Video camera

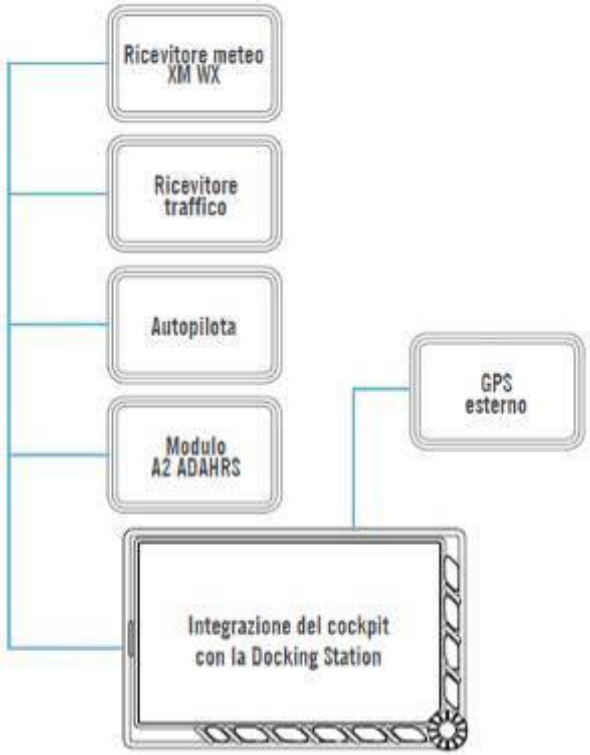
GPS

Weather

AvMap Glass Cockpit System

EKP V + Cockpit Docking Station + all the instruments you need

The easy to install, light and cost effective system designed for light-sport, ultra-light & experimental aircrafts.



AvMap Glass Cockpit System

For the Sport/Ultralight and General Aviation market.

1. EKP V **7” GPS navigator, EFB, PFD**
2. Cockpit Docking Station
3. **A2 ADAHRS** module
4. **GPS** receiver

Compatible with third parties' instruments and accessories:

- ZAON PCAS XRX collision avoidance system
- Autopilot
- Video cameras
- Weather receiver WxWorx XM WX*

* Service available in North America only.

A complete and adjustable system

An adjustable system

The AvMap Glass Cockpit AvMap is a **flexible and adjustable system**: starting from EKP V and its docking station, you can add extra AvMap instruments and compatible accessories.

Everything is **easy to install and to extend** at any time.

Multiple connectivity

The AvMap Glass Cockpit system offers mutliple connection possibilities:

- **GPS receiver**
- **ADAHRS**
- **Autopilot**
- **Avoidance collision system**
- **Video camera**
- **Weather receiver**
- **Other instruments…**

With 4 simultaneous USB connections plus 2 serial connections, it is **easy to customize the system and connect the desired additional instruments.**

EKP V

the core of your integrated Glass Cockpit System

EKP V

Portable Glass Cockpit

GPS navigation,
Artificial Horizon, Air Data,
and much more...

EKP V: the core of your integrated Glass Cockpit System

AvMap EKP V redefines the role of the GPS inside the cockpit. EKP V is intended to be both a cockpit-installed instrument and a portable device.

The wide and bright 7” LCD becomes multifunctional and capable to display several data useful for your flight.

Versatile Installation

EKPV

Portable Glass Cockpit

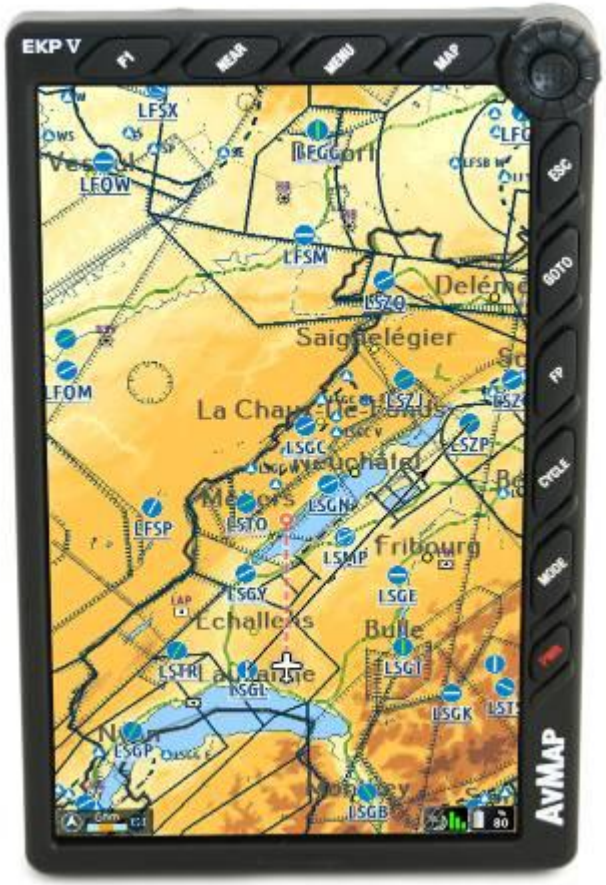
Panel-mounted & Portable at the same time!

At any moment, it is possible to remove EKP V from the panel to update it, to plan a flight, to debrief after an exercise etc.

Vertical or Horizontal!

Thin and light, yet very powerful!

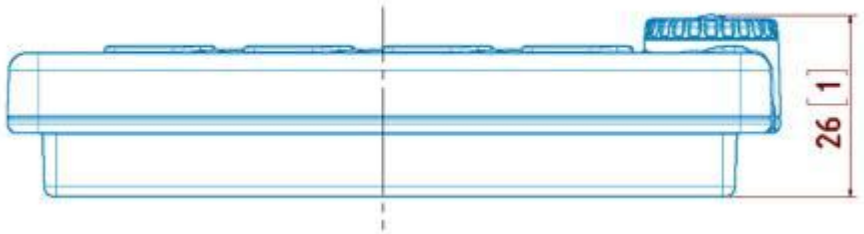
AvMap EKP V



EKPV

Compact, light yet fully featured

The ultra bright 7” display is only **0.8” thick.** EKP V is slim and light, yet very powerful: with built-in u-blox 6 GPS receiver, removable battery and speakers.



AvMap EKP V

Comparison chart HARDWARE	EKP IV	EKP V
Dimensions	180 x 120 x 45 mm	172 x 110 x 21 mm
Weight	800 g	400 g
Display	7” (16:9) LCD TFT Resolution 800 x 480	7” (16:9) LCD TFT Resolution 800 x 480
Processor	200Mhz	800 MHz
GPS Antenna	Built-in WAAS/ EGNOS enabled + external antenna	built-in WAAS/ EGNOS + external antenna
Internal battery	No (with external battery pack, up to 1h autonomy)	Rechargeable, removable, Li-Ion. Up to 4h autonomy
Memory support	CF card preloaded with software and maps	Micro SD preloaded with software and maps
Connectivity	N.1 Serial Port	Multiple connettivity

Practical and easy to use

EKPV

Easy to use

- Progressive Joystick
- Wheel selector
- New user graphic interface
- 10 hard keys
- LCD TFT 7" Display, 16:9,
- Resolution: 800 x 480 pixels
- Brightness: 600 cd/m2

EKPV

LCD vs Touchscreen

Have you ever tried using a touchscreen during a turbulence? **Hard keys ensure higher safety!**

All Touchscreen displays have an additional film that increases reflections but diminishes brightness.
EKP V display is brighter then the iPad!

Customizable

Customize your EKP V

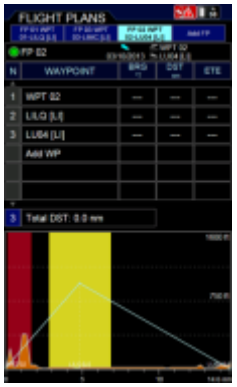
- **Horizontal or Vertical mode**
- **Choose where and how to display flight info**
- **Configure the F1 key with your favourite shortcut**
- **Set different PROFILES for different aircraft**

How to use the keys shortcuts

F1: open a page of your choice

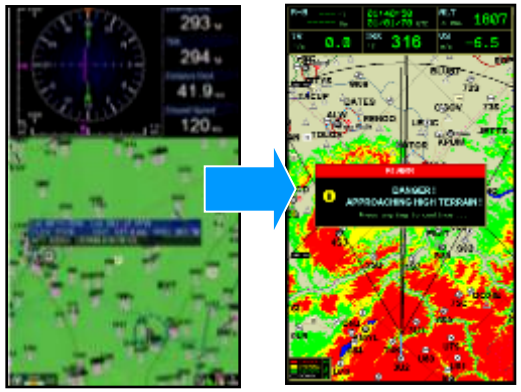
NEAR:
get a list of near objects

MAP:
open the map



FP: open the flight plan page

MODE: Map / PFD / EFB



CYCLE: cycle the different map representation as set in the cycle menu

The Moving Map Excellence

Moving Map Excellence

Provided by AvMap, 30 years of expertise in Navigation Technology.

The most detailed maps, with the most reliable official data.

- **Jeppesen**
- **Avioportolano**
- **NAVTEQ Street Maps**
- **Approach Plates and Airport diagrams**
- **VFR charts: FAA Sectionals**

EKP V Mpas:

Approach Plates and airport diagrams

EKP V is preloaded with approach plates and airport diagrams of 40 European countries or United States, supplied by Seattle Avionics.

Download the first update for free from www.seattleavionics.com/ekpV

You can subscribe to the Seattle Avionics update service to receive 13 updates a year, one every 28 days.

AvMap EKP V

Have you ever wished to import custom maps in your navigator?

This is now possible thanks to the Map Converter, a special application included in the AvMap Suite that allows you to put a paper or electronic map in your AvMap Navigator!

1.Use Google Earth or other mapping software (e.g. OziExplorer) **to geotag an image of a map.**

2. Then **use the Suite to convert the map into the AvMap format** and to import it on your Navigator.

Start creating your maps now!

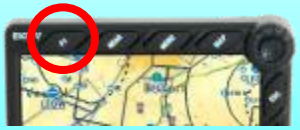
www.impexaviation.de

Advanced Navigation Technology

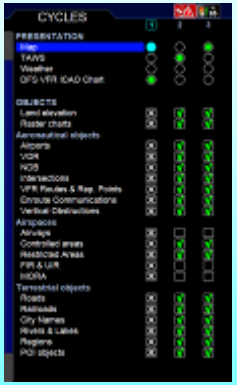
AvMap EKP V

Customization

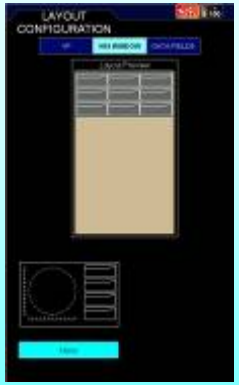
Horizontal/ Vertical view



F1 customizable key



Set the map cycles

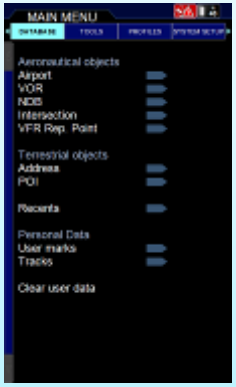


Customize the flight info layout

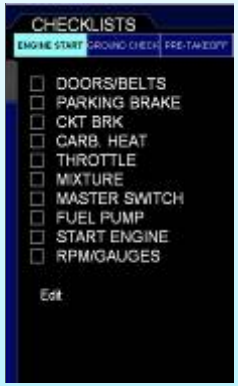
Set the aircraft profiles

Planning

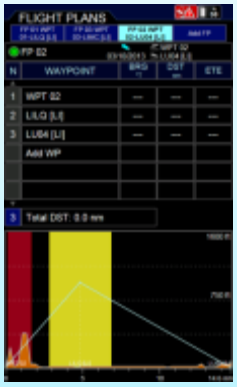
GO TO smart menu



Search in the Jeppesen database for Airports, VOR, NDB, INT, VFR rep. points



Editable Checklist



Flight Plan Vertical Profile (plan up to 50 FP)

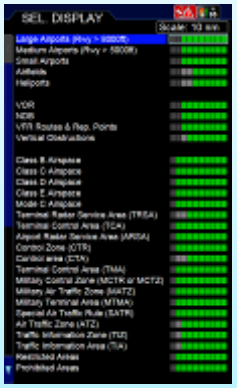
SAR

Search for a street address

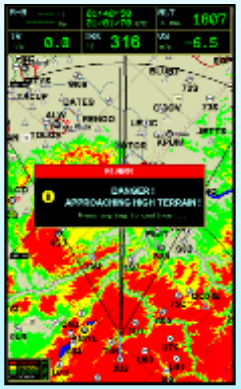
AvMap EKP V

Maps

Interactive maps



Select which data display at every zoom level



TAWS and obstacles

Airport Diagrams

Approach plates

VFR charts

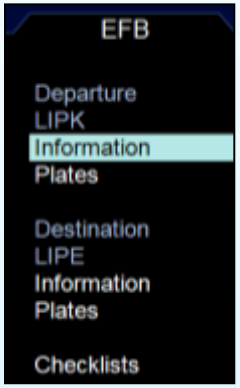
During the flight

HSI

Vertical profile on map

Airspace alarms

NEAREST: search for the nearest airport



EFB

Night vision

Glass Cockpit System: connection to external tools

Attitude

Traffic

Video camera

Engines

Weather (only in North America)

Compatible with the best Flight Planning services

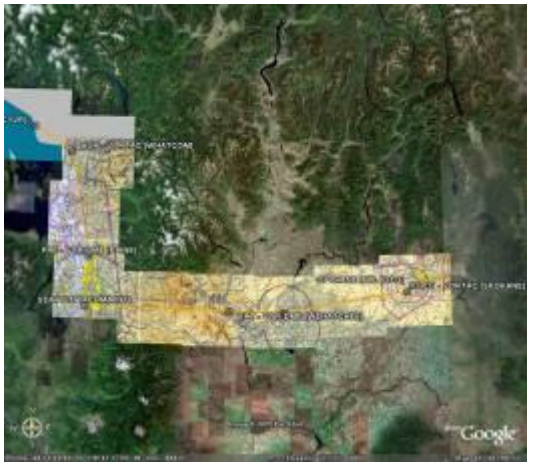
Compatibility with Flight planning services

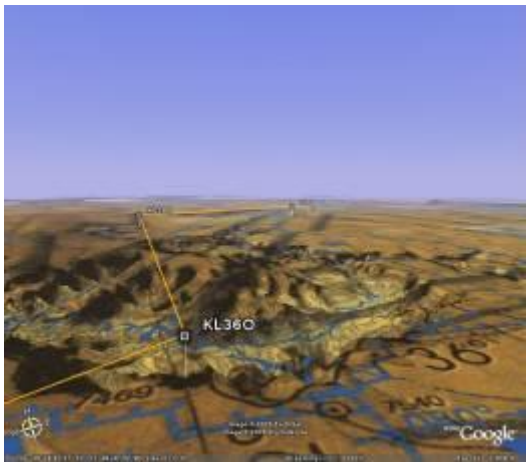
Import Fligh Plans from RocketRoute

www.rocketroute.com

Import Flight Plans form iFlight Planner

iFlightPlanner.com/AvMap





Compatible with Google Earth

You can plan your flight on Google Earth and then export the Waypoints to EKP V through the AvMap Suite.

Export tracks, flight plans and waypoints from EKP V to Google Earth in order to analyze or to share them.

Easy to Update

AvMap Suite

The PC application that helps you keeping your EKPV up-to-date, allows you customizing your contents and sharing them with your friends.

1. Download for free AvMap Suite from
www.avmap.it/avionics/avmapsuite
Chose the PC or MAC version and install it.

2. Connect EKP V to the PC
with the provided USB cable

3. The Suite will warn you every time a map or software update is available for your EKPV.

Connect EKP V to the PC periodically to keep it up-to-date!

AvMap Suite

keeping your EKPV up-to-date, customize your contents and share them!

- Download the latest **Software Updates for free**

- **Update with ease your maps: f**ind out if you are granted a free map update and if new maps for your EKP V are available in the shop.

- **Export waypoints, routes and tracks**
  to share them with friends / colleagues / students

Why EKP V?

Why EKP V?

- **A professional avionics device dedicated to navigation**
- Hardware virtually temperature-insensitive: -20°+60° operative temp / -30°+80° storage temp.
- **Double GPS antenna (internal and external)**
- **Ultrabright 7” Display**
- Safe connections thanks to the **internal battery back-up** (rechargeable and removable)
- **Panel-mounted and Portable at the same time**
- **A product in continuous evolution with free updates**
- **Hardware ready for new future connections**

Why EKP V?

- **Moving Map Excellence**: 30 years of expertise in electronic charts
- The most complete maps with the most reliable **official data**
- **Easy to use**
- **Customizable**: Vertical/Horizontal view, layout, profiles, F1 key
- **Multifunctional: Navigation, EFB, PFD in one device**

Cockpit installation:

Cockpit cradle kit & Docking station

Panel mounting

EKP V can be used as a portable knee pad or can be panel mounted in 2 ways:

▪ Cockpit Cradle Kit

BASIC INTEGRATION

Power supply and connection to the external GPS.

▪ Cockpit Docking Station

ADVANCED CONNECTIVITY

The hub of all the electronics connection. It allows connecting EKP V to multiple devices simultaneously:

- **GPS receiver**
- **Autopilot**
- **PCAS ZAON XRX avoidance collision system**
- **ADAHRS**
- **Video cameras / EVS.**

In both cases, **it is possible at any moment, to remove the EKPV** to use it as a portable GPS or to update it through your PC.

Cockpit Docking Station

Connections:

- 4x USB 2.0
- 2x serial ports (1x RS-232, 1x TTL levels)
- Audio IN / Audio OUT
- Video IN (PAL or NTSC)
- External GPS antenna
- Power supply: 10 - 35 VDC (28W max)

A2 ADAHRS

A2 ADAHRS module

Air data, attitude, altitude and heading displayed on your EKP V' 7”

When connected to the A2 ADAHRS module through its cockpit Docking Station, EKP V turns into a a full-featured Primary Flight Display for light sport, ultra-light and experimental aircraft.

A2 ADAHRS module contains solid-state gyros, accelerometers, magnetic field sensors and air data sensors.

A2 ADAHRS:

Turns EKP V into a fast and reliable EFIS

Installation:

- Pitot-static system
- Docking Station
- In any position
- (with guided calibration procedure)

A2 ADAHRS technical specifications

- Dimensions (mm) 70 x 60 x 35
- **Weight < 50 g / 1.8 Oz**
- **Operating range from -20° C to +80° C**
- solid-state gyros, accelerometers, and 3-axis magnetic field sensors
- Acceleration (3 axis) +/- 8 g
- Rotation +/- 1600 g/s
- Air sensors: from 10 to 250 kts, from -1000 to 40000 ft

AvMap Glass Cockpit System conclusions

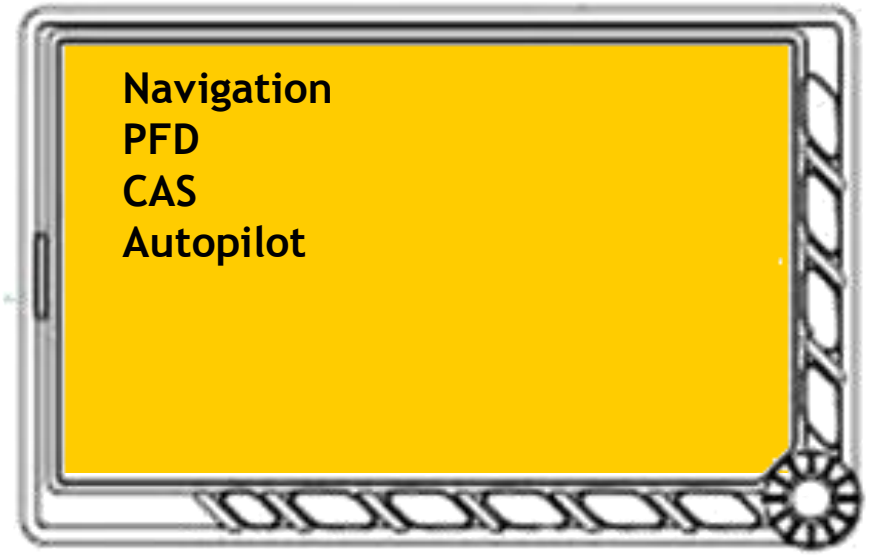
Create your ideal configuration

Ideal Configurations

With 4 simultaneous USB connections plus 2 serial connections, it is easy to customize the system and connect the desired additional instruments. Here are some examples according to cockpit space and budget.

CONFIGURATION 1:

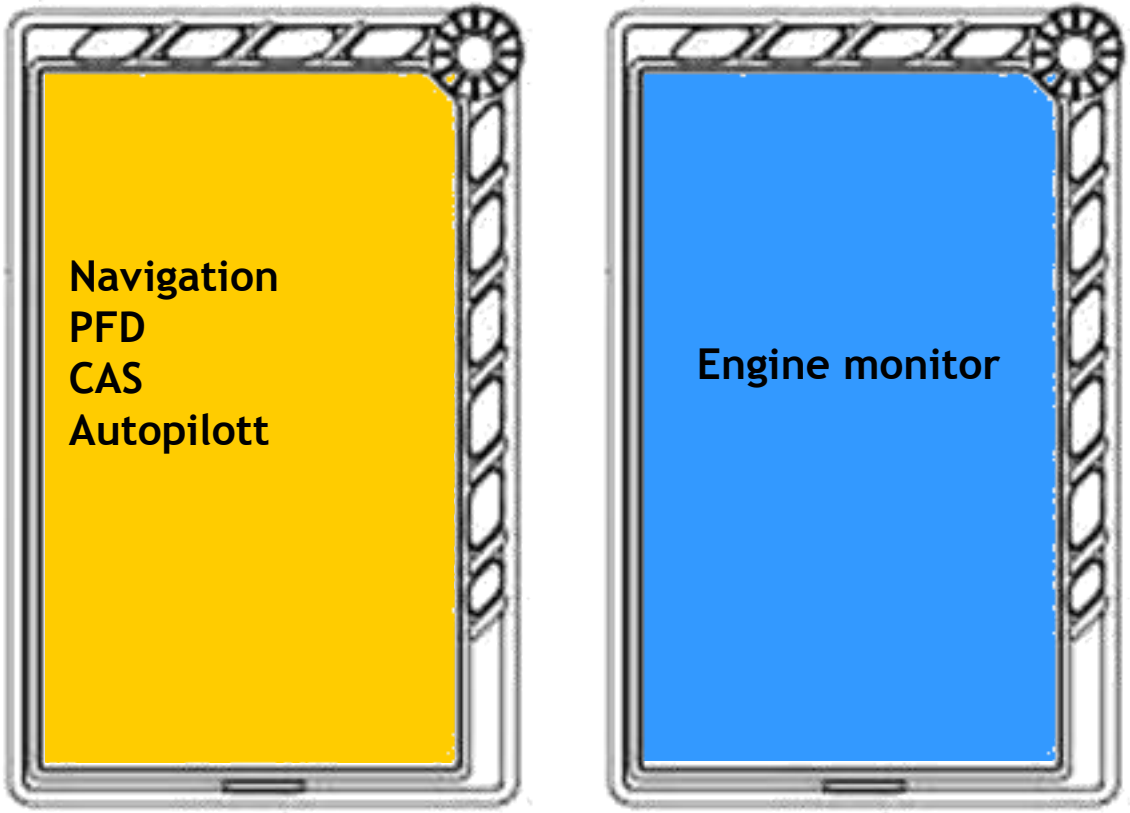
One EKP V used as multifunctional display, connected to multiple instruments.



Ideal Configurations

CONFIGURATION 2

Two EKP V, one dedicated to navigation and the other one to Engine monitor.

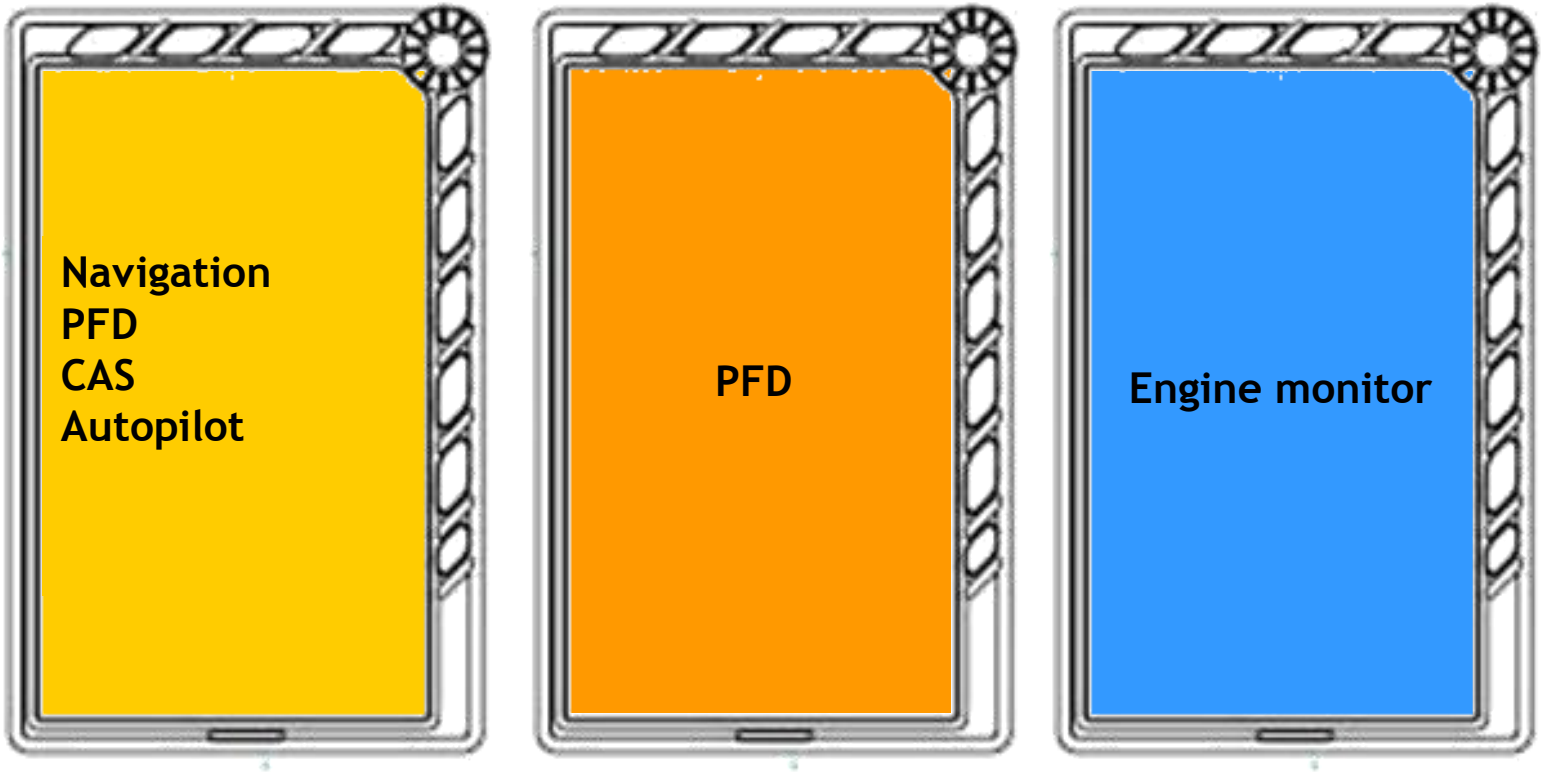


Ideal Configurations

CONFIGURATION 3

Three EKP V, for an optimal positioning awareness on the 7" displays.

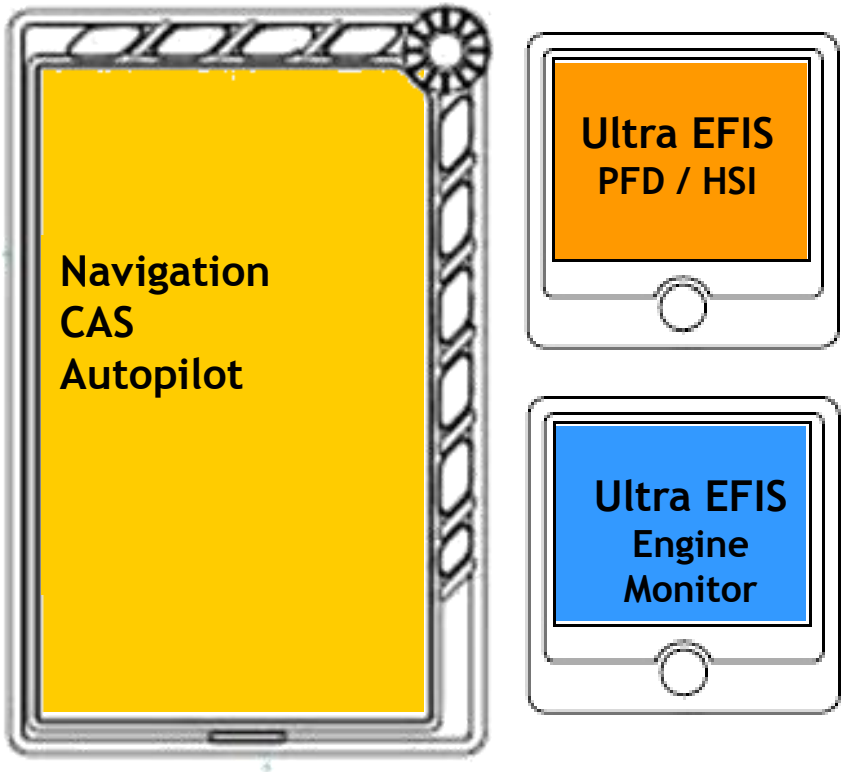
3 x 7” IS BETTER THAN 2 x 10” !



Ideal Configurations

CONFIGURATION 4:

One EKP V and two Ultra EFIS and you have everything under control with a convenient solution!



Why choose the AvMap Glass Cockpit System?

Why choose an AvMap Glass Cockpit system

Panel-mounted and Portable at the same time:

Easy removal of the EKP V from the panel to use it as a portable GPS or in order to update it.

Why choose an AvMap Glass Cockpit system

Costs: panel mounted system are very expensive > 5000$.

Solution: a scalable system

AvMap has designed a new customized Glass Cockpit System that allows OEM and users to connect additional instruments and accessories optimizing the cockpit.

Why choose an AvMap Glass Cockpit system

Installation

Installing and connecting many different devices and cables in a ultra light cockpit can be challenging due to lack of space.

Solution: the smart docking station

The AvMap Cockpit Docking Station has been designed to be the hub of all the electrical connections, optimizing space and avoiding external cables.

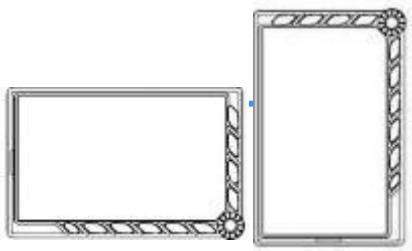
The power supply issue

The correct electrical connection is crucial in an ultra light aircraft.

Solution: the back-up battery

The AvMap Glass Cockpit is powered by the aircraft electrical system with a vibration proof AVG 16 connector. One of the USB ports is powered by the EKP V's internal battery to ensure continuous power supply even in case od electric failure.

Why choose an AvMap Glass Cockpit system



The space issue:

The space in an ultra light cockpit is very limited

and it is difficult to change the configuration once you have installed some instruments.

Solution: Horizontal and vertical mode

The AvMap system is very flexible: **EKP V can be installed both in vertical and horizontal mode,** and its multifunctional display can provide several flight info optimizing space. Even the accessories such as the **ADARHS module, can be installed in any position.**

The weight issue::

Weight = fuel consumption

It is very important to keep the avionics as light as possible.

Solution: the AvMap system is light and compact

EKPV (400g) + **A2 ADAHRS (50 g)** + Docking Station + GPS receiver + cables

= only 859g for the entire system !

ULTRA EFIS

AvMap Ultra

AvMAP
SATELLITE NAVIGATION

Ultra EFIS

- **Attitude (roll, pitch and heading)**
- **Airspeed from Pitot-static system**
- **Altitude from Pitot-static system**
- **Side Slip**
- **Vertical Speed**
- **G-meter**
- **Compass**
- **Worldwide Jeppesen navdata**
- **PFD and HSI screen**

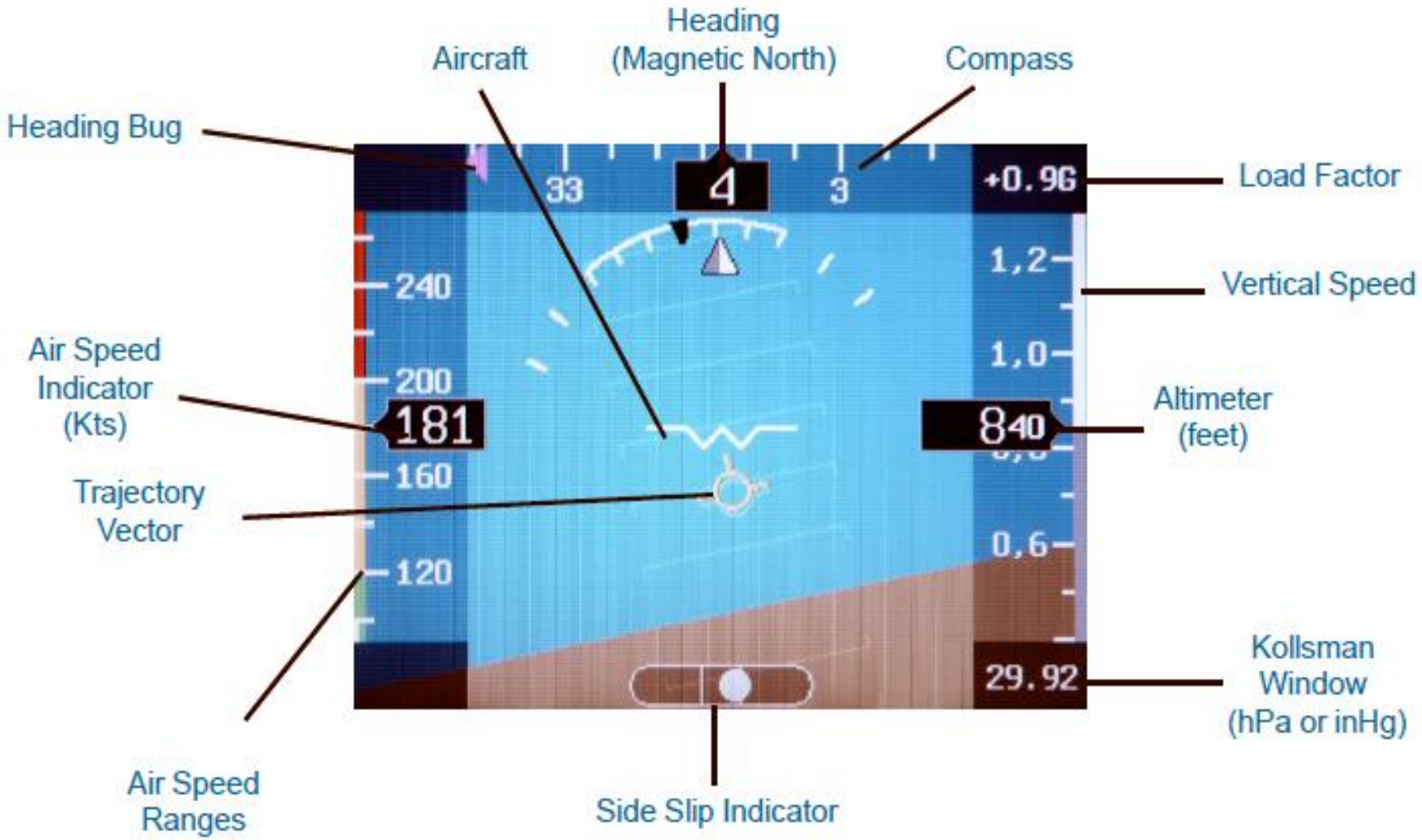
The most reliable and advanced ADAHRS, in an ultra compact and ultra light device!

Designed for light-sport, ultra light and experimental aircraft.

AvMap Ultra

- **Virtually temperature-insensitive as its operating range goes from -20° C to +80° C!**
- **Reliable:** Ultra EFIS contains solid-state gyros, accelerometers, magnetic field sensors, air data sensors and UAV Navigation motion processor.
- **Ultra compact:** only **49.5 installing depth, and Ultra light**: only **145 g** while the market average is1 lb 9 oz / 700 g.
- **Not only EFIS but also navigation back-up with the Jeppesen database!**

AvMap Ultra


Heading
(Magnetic North)
Aircraft
Compass
Heading Bug
33
4
3
+0.9G
Load Factor
240
1,2
Vertical Speed
Air Speed
Indicator
(Kts)
200
1,0
181
840
Altimeter
(feet)
Trajectory
Vector
160
0,6
120
Kollsman
Window
(hPa or inHg)
29.92
Air Speed
Ranges
Side Slip Indicator

AvMap Ultra

Current Position
HSI course Selector
Heading (Magnetic North)
ADF indicator
Wind (Estimated)
TAS (Kts)
POS
N 41 02.15
W 003 29.34
WIND 36/12
TAS 173
GS 181
108
LEMT
45.9 nm
CASARRUBIOS
TWR 123.50
RWY 08/26
LEMH
329.5 n
MAHON
TWR 118.30
RWY 01/19
HSI Info Box
ADF Info box
Ground Speed (Kts)

Customer care

Customer Support

Europe: +39 0585 784044

How to get Customer Support for your AvMap device:

1. Register your Navigator
2. Read the FAQ section
3. If you do not find the answer to your problem, please use the online Assistance form.
4. The Customer Support will reply providing you instructions and the Call Center phone number.
5. If the problem persists, we will e-mail you an ‘RMA’ repair code for the return of the unit.

Register your EKP V

Register your EKP V on **www.avmap.it** in the support section.

The registration of your AvMap is needed for:

- **Downloading for free the AvMap Suite** to manage your EKP V through your PC
- **Downloading for free the Software Updates**
- **Receiving customer support**
- **Receiving warnings on the availability of new maps on the shop online**
- **Buying on the shop online** products, accessories or maps and checking the history of purchases

After sales customer care

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